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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,061	07/17/2003	Kazuyuki Miyabe	NEC 03FN011	2280
27667	7590	08/09/2005	EXAMINER	
HAYES, SOLOWAY P.C. 130 W. CUSHING STREET TUCSON, AZ 85701				NGUYEN, TUAN N
ART UNIT		PAPER NUMBER		

2828

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/622,061	MIYABE ET AL. <i>AM</i>
	<b>Examiner</b> Tuan N. Nguyen	<b>Art Unit</b> 2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07/17/2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-16 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/06/03;05/12/05</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of 35 U.S.C. 102(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 2, 3 are rejected under 35 U.S.C. 102(a) as being unpatentable over Prior Art Figure 1 or Ouchi (US 2003/0026303).

With respect to claim 1 Prior Art (Fig 1-3) show a semiconductor laser device comprising: a heat radiating block (Fig 1,2: 101, 1), one or more first semiconductor arranged on said block where one electrode is in contact therewith (Fig 1: 65, 62), and one or more second semiconductor arranged on said heating radiating block via a dielectric layer (Fig 1: 5).

With respect to claims 2-4 (Fig 1) shows both semiconductor laser integrate on the same block or chip, where one electrode of first semiconductor is in contact with the block and second laser is on dielectric layer (Fig 1: 24, 61, 32, 5), where heating block is a semiconductor.

With respect to claims 1-4, Ouchi '303 shows a semiconductor laser device comprising: a heat radiating block (Fig 7: 30), one or more first semiconductor arranged on said block where one electrode is in contact therewith (Fig 7: 9, 6), and one or more second semiconductor arranged on said heating radiating block via a dielectric layer (Fig 1: laser output, 30), where heating block is a semiconductor.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or non-obviousness.
4. Claims 5-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art in view of Uchisaki et al. (JP 2000-011417).

With respect to claims 5-7, PRIOR ART discloses the above. The claim further requires a photodiode built onto heat radiating block. Uchisaki et al. ' 417 discloses two semiconductor lasers on a heating block with light monitor photodiode build on the heat block (Fig 5: 31, 41, 37, 38). It would have been obvious to one of ordinary skill in the art to provide the PRIOR ART the photodiode as taught or suggested by Uchisaki et al. ' 417 for monitor and control the laser output, in relation with the amount of heating generates and affecting the wavelength output.

With respect to claim 8-10, the claims further require the dielectric layer is formed of one selected from SiO, SiN, TiO, AlO, and AlN. Uchisaki et al. ' 417 discloses the materials used in

the semiconductor (Col 28: 354 AlN, 230 SiO) and others. It is within the general skill of a worker in the art at the time the invention was made to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

With respect to claims 11-13, the claims further require the first semiconductor laser is greater in heat generation than the second laser. It has been held that where the general conditions of a claim are disclosed in the prior art, disclosing the optimum or workable ranges involves only routine skill in the art, in this case the size of the electrode conducting heat to the heating block. *In re Aller*, 105 USPQ 233.

With respect to claims 14-16, the claims further require that the first laser emits a 650nm band wavelength and the second laser emits 780nm wavelength. Uchisaki et al. '417, discloses the first and second lasers emit the 650nm and 780nm (Col 28: 240, 241).

### ***Communication Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey Minsun can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan N. Nguyen

A handwritten signature in black ink, appearing to read "Tuan N. Nguyen".A handwritten signature in black ink, appearing to read "Minsun Oh Harvey".

MINSUN OH HARVEY  
PRIMARY EXAMINER